Amendments to the Specification:

Please replace the paragraph beginning at page 50, line 31 with the following amended paragraph:

--Figure 1 shows the cDNA sequence (in 5'→3' orientation) corresponding to the mRNA that encodes preproPAPP-A2. Only the coding part of the sequence and the terminal stop codon (*) is shown and is numbered 1-5376 of SEQ ID NO:1. The translated polypeptide sequence (SEQ ID NO:2) of preproPAPP-A2 is also shown. The signal peptide cleavage site was predicted using SignalP V2.0 to be after the alanine residue encoded by nt. 64-66 ((Nielsen et al., 1997, Protein Eng 10, 1-6), WWW prediction server is located at ~~http://genome.cbs.dtu.dk/~~ genome DOT cbs DOT dtu DOT dk) (hyperlink disabled to comply with MPEP 608.01 (VIII)). The signal peptide of preproPAPP-A2 (nt. 1-66, 22 residues) is shown in bold. The nucleotide sequence of this figure represents nt. 1 to 5376 of SEQ ID NO:1. The protein sequence of this figure is illustrated as SEQ ID NO:2.

Please replace the paragraph beginning at page 54, line 12 with the following amended paragraph:

Searching public nucleotide databases for DNA sequences with homology to PAPP-A(Kristensen et al., 1994, Biochemistry 33, 1592-8), AN CAA48341) when translated into polypeptide sequence revealed two genomic clones with the ANs AL031734 and AL031290. Both originate from the human chromosome 1(1q24). The search was performed against the "nr" collection of databases using the program tblastn at ~~http://www.ncbi.nlm.nih.gov/BLAST/~~ ncbi DOT nlm DOT nih DOT gov/BLAST/ (hyperlink disabled to comply with MPEP 608.01 (VIII)) with default settings. In this example, PAPP-A is numbered with the N-terminal Glu as residue 1, as in (Kristensen et al., 1994, Biochemistry 33, 1592-8). In the deposited sequence record (AN X68280) this Glu is residue 5.

Please replace the paragraph beginning at page 54, line 12 with the following amended paragraph:

Cloning of a contiguous coding cDNA stretch corresponding to the C-terminal end of PAPP-A2(hom-C): Searching available databases (using the program blastn at ~~http://www.ncbi.nlm.nih.gov/BLAST/~~ NIH's Blast webpage with the default settings) for human EST sequences matching the genomic sequence of AL031290 revealed an EST sequence overlapping with some of the coding regions of AL031290 already defined by the stretch nt. 60536-60652 (cf. above). Nt. 62790-62995 of AL031290 also matched the sequence of the human EST sequence AA368081 originating from placenta. When translated into polypeptide sequence, this EST sequence showed homology to the C-terminal end of PAPP-A. Further, a stop codon was present within the coding sequence corresponding to amino acid 1537 of PAPP-A. That is, PAPP-A2 does not extend C-terminally beyond PAPP-A when the two sequences are aligned. Based on this, cDNA was synthesized using human placental mRNA as a template and a primer originating from AL031290 (Table 1). This cDNA was used as a template in a PCR to obtain the contiguous cDNA of hom-C using PCR primers PR-C5 and PR-C3 (Table 1, Figure 2).